2B.8 Field Portable Detection of Hazardous compounds Using a SAW/GC System

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This paper describes the field testing of a novel fast, portable gas chromatography utilizing a surface acoustic wave (SAW) detector. The instrument has the ability to speciate and quantity compounds of interest within 10 seconds from air, ground and water matrices. Previous research tasks were to demonstrate the identification of a representative number of Volatile Organic Compounds (VOCs) at a DOE site. Three separate field tests were held at the Savannah River Facility and reported in a prior paper.

Further research was defined to (1) expand field demonstrations and gather data at other DOE sites; (2) to develop field test protocols compatible with EPA methods for reporting purposes; (3) to evaluate SAW/GC technology as a field screening tool for dioxins and PCBs; and (4) to apply for and obtain a California Environmental Protection Agency (CAEPA) Certification.

The field expeditions will be discussed and the preliminary findings of analyte a screening capability through the California EPA Certification process. The project was undertaken utilizing a 50% cost sharing whereby, Amerasia accepted and paid half of the contract cost for these objectives.